



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE

MEMO

TO: File
FROM: Cheryl Mayo, Environmental Specialist II
DATE: April 25, 2017
SUBJECT: Engineering Analysis Memo

Company Name: Georgia-Pacific Wood Products – Emporia Plywood Plant
634 Davis Street
Emporia, Virginia 23847

Georgia-Pacific Wood Products has applied for a Title V modification to replace the CAM requirements for its wood-fired boiler scrubber with the monitoring requirements of MACT Subpart DDDDD. Additionally, it was requested that scrubber recirculation water flow, rather than make-up water flow, be monitored. Requiring a minimum make-up water flow rate meant that unnecessary water was being added into the system and going straight to water treatment.

Georgia-Pacific also requested that the CAM requirements for monitoring the differential pressure across the multicyclone be removed, since the multicyclone is considered inherent process equipment, and the differential pressure is not correlated with the emission rate from the scrubber.

The permit application was originally received in the region on September 26, 2016. It was deemed administratively complete on November 15, 2016. Because the modification pertains to a change in the monitoring method, it is a significant modification, which requires public participation. The proposed permit was placed on public notice in the Independent Messenger on March 22, 2017. The 30-day public comment period ran from March 22, 2017 to April 24, 2017, and no public comments were received. The EPA 45-day review period ran concurrently, and a response from EPA Region III was received on April 13, 2017 with no comments on the permit.

The following is the DEQ response to each of the permit change requests:

Replace CAM Requirements with MACT Subpart DDDDD monitoring requirements:

The most important aspect of this request is the replacement of the 3-hour block averaging required by CAM the current Title V permit with the 30- rolling average required by the MACT. Although aspects of the Boiler MACT are currently in litigation, the facility is demonstrating compliance with the MACT as required by Subpart DDDDD. The 3-hour averaging period required by CAM in the current Title V permit entails an entirely separate set of records. DEQ has determined that the Boiler MACT monitoring is presumptively acceptable since the standard was promulgated after November 15, 1990. However, since some provisions are in the MACT are in litigation, it is the opinion of the agency that MACT citations should not be used in Title V permits at this time. Instead, the monitoring provisions from the MACT have been included in the body of the CAM Table in Condition 14, with a Part 64 citation for the Condition.

MACT citations have been added in tabular format to Condition 9, and recordkeeping and reporting requirements have been added to Conditions 22 (items c and g) and 25 (items a, b, and c).

Replacement of Scrubber Make-up Water Flow with Scrubber Recirculation Water Flow as the Monitored Parameter:

Maintaining a minimum make-up water flow rate caused overflow when the make-up water was added when not needed, both wasting fresh water and causing unnecessary loads on the water treatment system. Maintaining a minimum recirculation flow rate ensures that the liquid flow through the scrubber is maintained, and make-up water can be added as necessary. This change is reflected in Conditions 11, 22c, and 25b.

Removal of Differential Pressure Monitoring for the Multicyclone

The multicyclone is considered inherent process equipment. Furthermore, Georgia-Pacific states that pressure drop is not a good indicator of the multicyclone performance on the boiler emissions, since pressure drop values vary widely based on boiler steam load, air flow, and other process variables. Consequently, Condition 13 (of the September 18, 2013 Title V Permit) was deleted from the modified permit.

Other Changes to the Permit

The General Conditions section, and the CAM citations throughout the permit, were updated according to the current Title V boilerplate.